

Detroit Water and Sewerage Department (DWSD)
Sewer Repair
15-Mile Road and Hayes Road
Daily Record of Events
Night Shift

Date: Tuesday/Wednesday, September 15, 2004

Weather Condition: Partly Cloudy, 65 degrees

1. **Observation Wells (OW) Levels:** OW1= 54.60', OW2= 56.12', OW3=57.25', OW4= 49.49, OW5= 42.00 at 5:30 a.m.
2. **Water Level Monitoring at East Manhole, east of Hayes:** Low Elev. 558.77. High 561.97 (B. M. 614.27). Level fluctuation of 3.2'.
3. **Water Level Monitoring at a Manhole west of the damaged tunnel section:** Low Elev. 554.62, High Elev. 555.02 (B.M 619.62). Level fluctuation of 0.4'.
4. **No Jetting**
5. **Wet Well Water Level Depth at Clinton Dale Sewage Pump Station** is 11.7' @ 7:00 p.m., one pump is on. The wet well water level depth at Clinton Dale Sewage Pump Station is 12.0x' @ 7:00 a.m. one pump is on.
6. **Thompson Pump:** Two representatives (2) to operate the 30/24 inch Axial Triple Stage in case of emergency at a MH east of Hayes and at Frazer connection MH, NE corner of Hayes/ 15 Mile respectively.
7. **Mersino:** Maintaining four by-pass pumps at MH SE corner of Hayes/ 15 Mile. Monitoring the operation of the dewatering pumps and the generators that supply them with power. Total of (11) Dewatering (DW) wells are in service.
8. **Spartan Specialties, LTD:** Continues drilling and grouting 4 locations around the perimeter of the discharge shaft. B6 (55' deep and 5' were grouted from bottom up), B4 (53' deep, and 5' were grouted from the bottom up), B2 (55' deep and grouted 5' from the bottom). As of this date, the twelve grout holes have been completed.
9. **Great Lakes Diving and Salvage:** One crew of divers (with assistance from L. D'Agostini and Sons) continued to remove debris in suction shaft number 1. Contractor reports 80% completion of this task for shaft number 1. Crew finished evening operations at 12:05 a.m.
10. **L. D'AGostini and Sons:** Assisted Mersino in the connecting of 12-inch line for dewatering pumps 2 and 5. Built dam around catch basin. Straw Bales with Air fresheners installed around discharge to sanitary sewer.
11. **Solomon Diving Inc.:** No activity during night shift.
12. **O'Laughlin:** Connected 6" pipe from manhole on the south side of 15 Mile road, across the street from Nan Marie to the sanitary manhole southwest of the discharge shaft. Connected 6" pipe from the entrance of Fontana subdivision to the sanitary manholes south west of discharge Shaft.
13. **Disinfection Station:** No emergency response activity warranted; chemist is on site.
14. Continued discharging water from pond to Catch Basin located in 15 Mile Road.
15. Sterling Heights, DPW: Bypassing sewage flow from a MH at the NW corner of Nan Maries to a manhole southwest of discharge Shaft, three times.
16. **NTH Consultants:** Monitored Divers at Pumping Shaft Number 1
17. **Lakeshore Engineering:** Continued monitoring of observation wells 1 through 5, and grouting operation at discharge shaft.

**SEWER REPAIR
15-MILE ROAD AND HAYES ROAD**

Daily record of events

Date: Tuesday, September 14, 2004

Weather Condition: Sunny, 68 deg.

Progress meeting was held at 8:00 A.M. today. Status of grouting around the discharge shaft, diving operation in shafts 1 & 2 was discussed.

Denver (Hayward Baker) Grouting: Removed all equipment from site. This completes the jet grouting demobilization from site.

Mersino: Re-directed discharge lines from DW-2, 3 & 4 to existing catch basins located on 15 Mile Road (Started at 5:30 P.M). Weld 12" pump caisson for DW-5A. One representative is on site servicing pumps and generators.

Thompson Pumps/ O'Laughlin: Relocated all diesel power packs of the pumps installed at manhole, northeast corner of 15 Mile and Hayes. This is required to continue the removal of pavement and excavation for the 36" HDPE discharge lines from shafts 1 & 2. Delivered two pumps (above ground) for the preparation of sanitary by pass from the subdivisions north and south of 15 Mile Road to existing 12" sanitary sewer west of sinkhole. One representative on site for emergency stand by for pump operation installed at manhole on 15 Mile Road, east of Hayes.

Rotor Electric: Completed assembly of disconnect panel control and installed it At the northeast corner of 15 Mile and Hayes for servicing proposed pumps in Fraser, Clinton connection. Excavated and formed for the concrete pad required to install the electrical switchgear serving the proposed axial 30" and 24" pumps at suction shaft No.1

DTE Energy: Assisted Thompson Pump Co. with lay out of the service to the proposed pumps.

NTH Consultants: Continued to monitor observation wells (OW) for ground water levels, grouting process at the discharge shaft and diving operation at suction shaft No. 1. Started drilling and probing over the existing 8-foot sewer to locate the center line. Preparing specifications for the ventilation fans required to install the bulk heads in the sewer. NTH Also, monitor the water level in discharge shaft. Six (6) feet of water was added inside of the shaft at 11:25 A.M.

SDA: Monitoring elevation on homes in Villa Fontana Subdivision (No changes in elevation noted). Checked elevation on established control points throughout site.

Rohrscheib Caisson, Inc: Contractor brought back to site the drill machine that will be used to install caisson at DW-5A. This drill was previously removed from site on September 10, 2004. No activity today. Manitowoc crane /drill (Two), loaders (Two), and water truck are idle on site.

Riteway Fence Co: Started installation of 6-foot chain link fence along the south side of 15 Mile Road, between west of sinkhole and Fontana Drive.

Ferguson Enterprise, Inc: Mobilized equipments (Excavator and one loader) on site at 6:30 P.M.

Great Lakes Diving and Salvage Co: (Diving Crew of 8 and Two Operators from LDS). Mobilized on site today. Set up equipment in A.M. and started diving operation at 1:00 P.M. Mr. Gino D'Agostini discussed the schedule with the diving team and it was decided that a night shift will be started today, concentrating on finishing suction shaft No. 1 before moving into the second.

Solomon Diving Co: No activity today.

IWPC: General coordination with subcontractors, provided security, and monitoring sewer flow east of Hayes and west of sinkhole (Average elevation at east manhole 559.67 and west of sinkhole 554.72). Jet rodded the sewer at manhole west of Moravian. Assisted Spartan Specialties using Vac truck to remove excessive grout and slurry mix from the soil stabilization at the discharge shaft.

LDS: Removed dirt and stock piled solidified slurry from staging area to dump. Performed dust control using water truck. Placed and finished concrete for drive approach and sidewalk at the listed areas:

15033 and 150 89 Mill Creek

33558 Monterra

34841 Fontana (Front)

34810 Gianetti (Front) in Villa Fontana subdivision

35273 Nan Marie, driveway approach (3 flags).

Continued to saw cut, break and remove concrete pavement on 15 Mile Road east of Hayes in preparation for the underground 36" HDPE pump discharge pipe.

Spartan Specialties, LTD: Continued drilling and grouting with micro cement material around the discharge shaft. Completed nine (9) holes to date and three holes remained for completion.

Sterling Heights, DPW: Bypassing sewerage flow from subdivisions north and south of 15-Mile Road using their own pumps. Representative is on site. The installation of submersible pumps was delayed because of delivery of different pumps by Thompson Pumps.

Clintondale Station: wet-well level, average is 11' with the use of one pump intermittently.

Disinfection Station: Chemist is on duty, Shift changed at 7:00 A.M. No activity necessary.